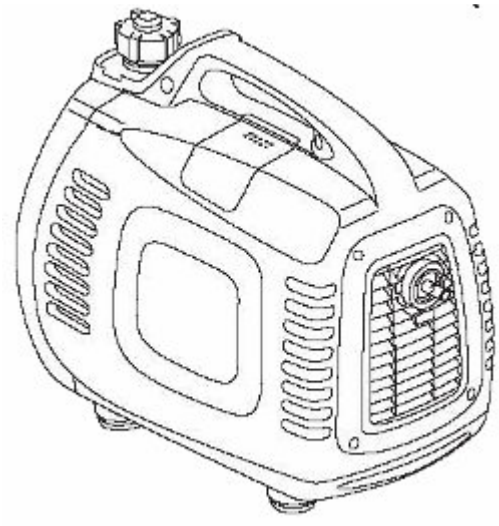
compass®

G1000i Inverter Generator



User's manual

Please read the manual carefully before using the generator.
This guide contains important guidance for safe operation.

Preface

Thank you for buying Inverter Generator.
This book includes the operation and maintenance instructions for the G1000i.
All the contents of this book are consistent with the print of the latest product.
The Company retains its right to amend this guide, thus will not notify later or bear any responsibility.
No duplicator is permitted without written permission.
As one permanent part of the generator, the guide will be kept with the generator when the machine is transferred.

Please pay special attention to the following words:

Warning This sign indicates that if you do not operate according to the guide, serious accidents involving casualties can be caused.

Look Out This sign indicates that if casualty is caused or the equipment is damaged by incorrect operation, you can contact your reseller if you have any questions about the generator.

Note: Give useful information.
If there is any failure of the generator, or if you have any questions about it, please consult your reseller.

Warning As long as you operate according to the guide, the G1000i generator will be safe and reliable. Please read and understand the guide without fail before you use it, or else casualties or damage of the equipment will be caused by incorrect operation.

Different types of generators may have some differences in their guides.

Catalogue

1. Safety matters
2. Label position of safety matters
3. Components identifier
4. Check before operation
5. Start the engine (operation at high altitudes)
6. Usage
7. Turn off the engine maintenance
8. Transport/storage
9. Examine and repair the breakdown
10. Technical specification
11. Wiring diagram

1. Safety Matters

To ensure safe operation matters

Warning

- If you operate the G1000i generator according to the guide, the generator will run safely. Please read and understand the guide without fail before you use it, or else casualties or damage of the equipment will be caused by incorrect operation.

Warning

- The exhaust contains toxic CO. Do not run the generator in dead-air space. Make sure to provide enough air.

Warning

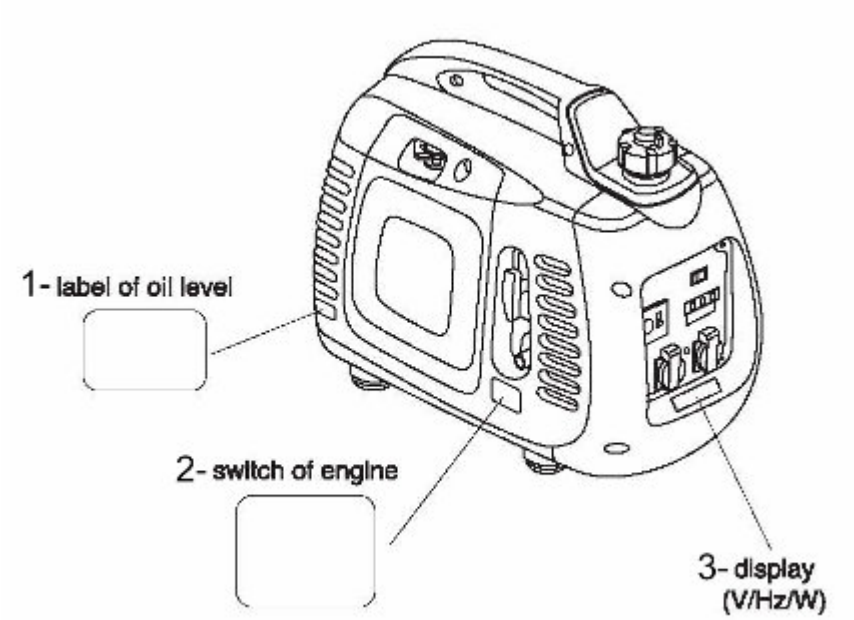
- The gasoline is very easy to burn or explode under specific conditions. Turn off the engine before filling.
- When filling the engine, keep away from cigarettes or spark. Please fill in a draught.
- Clean the overflowed gasoline immediately.

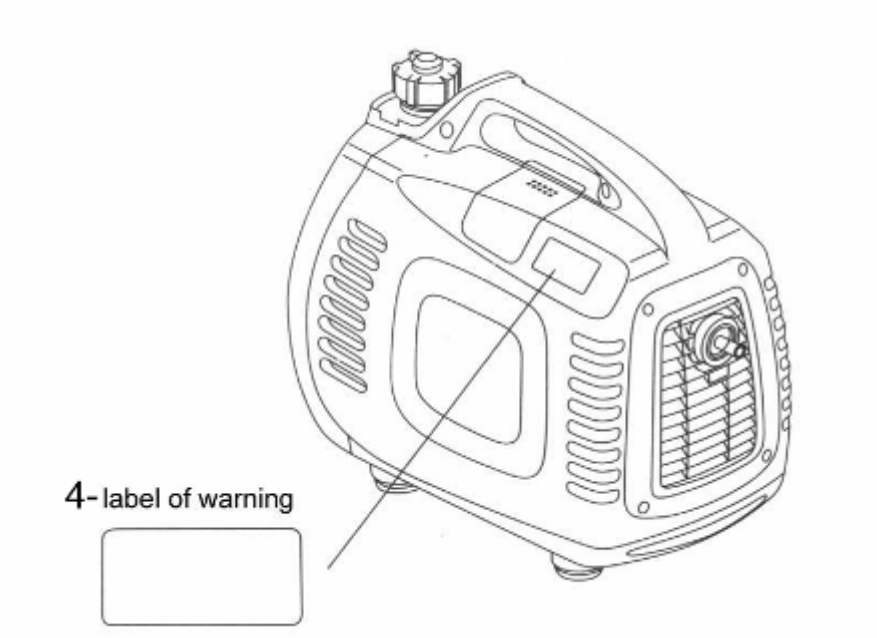
Warning

- Each time before you start the engine, you must do check it first, avoiding accidents or damage of the equipment.
- The generator must be run at a place at least one meter away from the buildings or other equipments.
- The generator must be run on a horizontal surface. If it leans, the gasoline would spill out.
- You must master the knowledge of how to turn off the generator quickly, and know all the operations of controlling the components. Do never operate the engine without correct instructions.
- Children and pets must be kept away from the operating area.
- When the engine is running, everyone must keep away from the circumvolving parts.
- The generator is a latent danger if it is incorrectly operated, so do not operate it by hand.
- Do not operate the generator in the rain or in the snow, preventing wetting it.

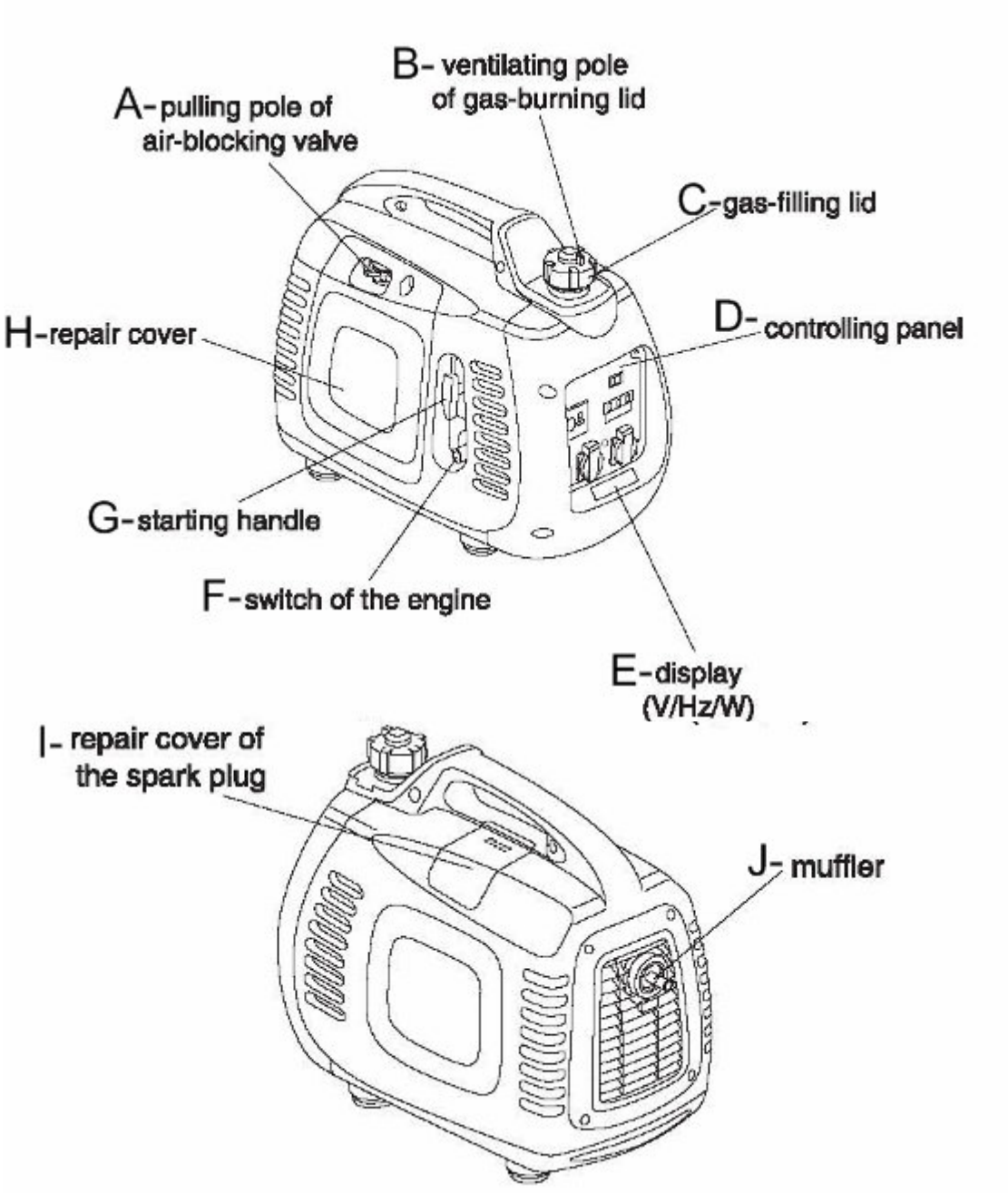
2. Label position of safety matters

These labels warn you of those latent dangers that will possibly cause serious accidents involving casualties. Please read carefully the words on the labels, the safety warnings and the notes recounted in the guide. If the labels have fallen off or are illegible, please contact the G1000i agent and change them.

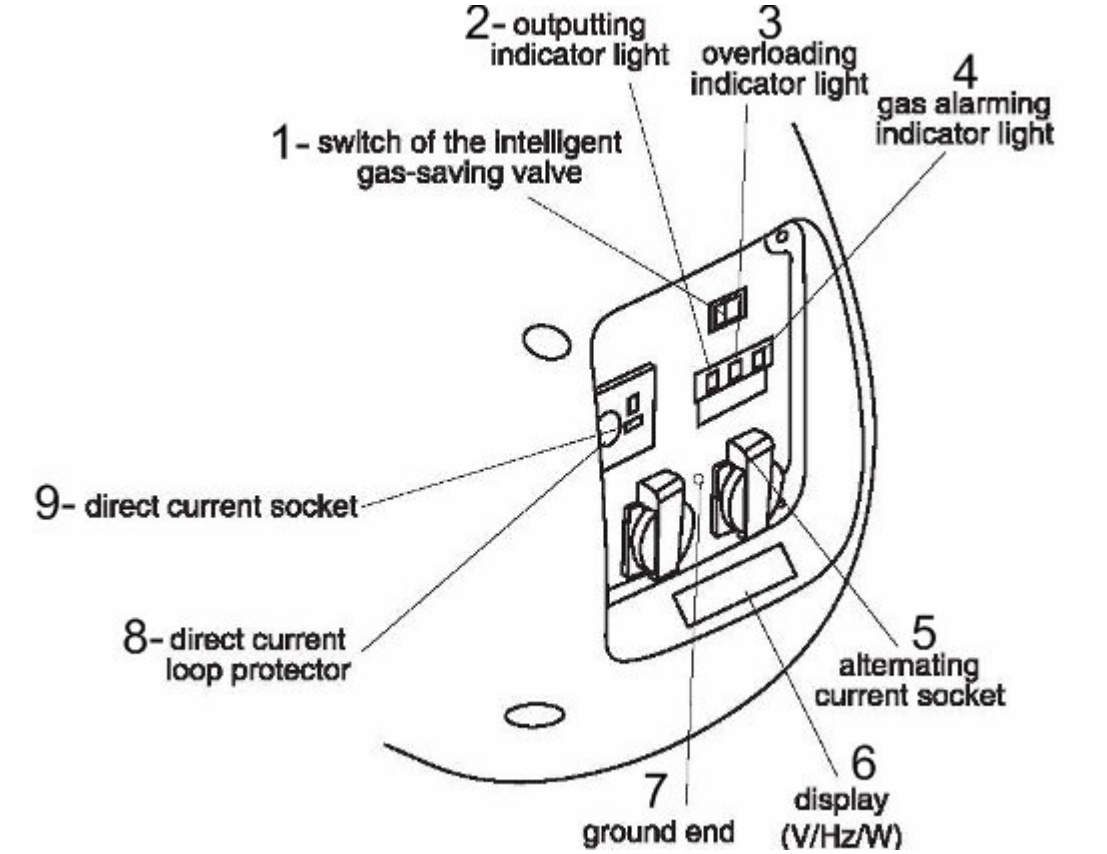




3. Components identifier


A- pulling pole of air-blocking valve
B- ventilating pole of gas-burning lid
C- gas-filling lid
D- controlling panel
H- repair cover
G- starting handle
F- switch of the engine
E- display (V/Hz/W)
I- repair cover of the spark plug
J- muffler

Controlling panel:


2- outputting indicator light
3 overloading indicator light
4 gas alarming indicator light
1- switch of the Intelligent gas-saving valve
9- direct current socket
8- direct current loop protector
5 alternating current socket
7 ground end
6 display (V/Hz/W)

Attention:
Tip: We have a smart display: when the machine is running it the state of voltage, frequency, and power used by the machine. It can be useful to avoid overloading when using the machine.

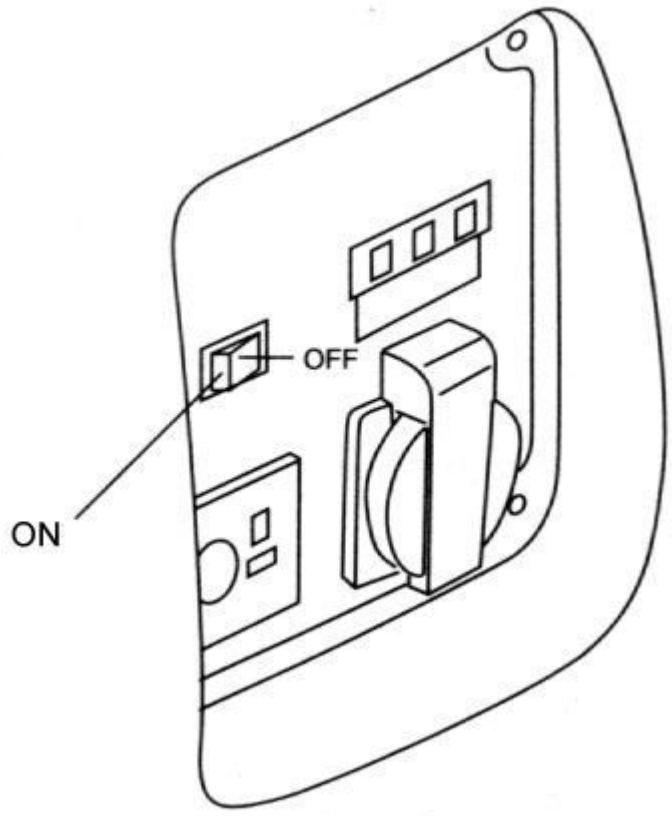
Intelligent gasoline-saving valve:
When the engine is disconnected from the electrical equipment, the velocity of the generator will slow down automatically. When the equipment is connected, the electric charge will make the generator return to a proper rotate speed. This installation is used to reduce the gasoline consumption during the running process.

Warning

- When the electrical equipment needs disconnecting from the electric power, the intelligent gasoline-saving system can not run effectively.
- When the generator is connected with a high electric charge, turn off the intelligent gasoline-saving valve to minimize the change of middle pressure.
- When using the DC output, please turn off the intelligent gasoline-saving valve.

Close:

It means the intelligent gasoline-saving system is closed, and the rotate speed of the generator is kept on a level higher than the standard rotate speed.



4. Check before operation

Warning

- Check the generator, keep it on a horizontal surface without fail, and ensure that the engine is turned off.

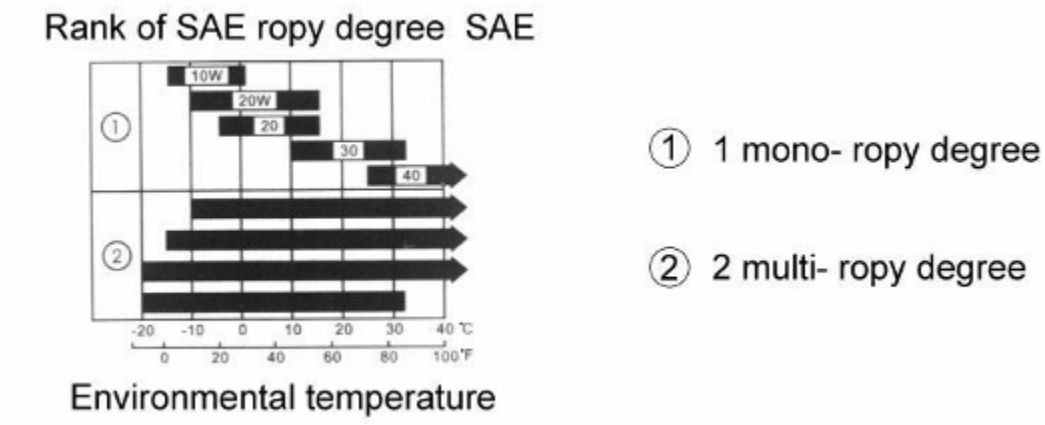
1. Check the oil level

Warning

- Using oil without cleanser or 2-strokes engine's oil may shorten the generator's service life.

Please use oil containing high quantity of cleanser or use high quality 4-strokes engine's oil. The quality level must answer for or exceed the SG/SF level which is required by the American manufacturer and lay down by American Petroleum Institute.

Please choose the engine oil with proper ropy degree based on the average temperature of the area you live in.



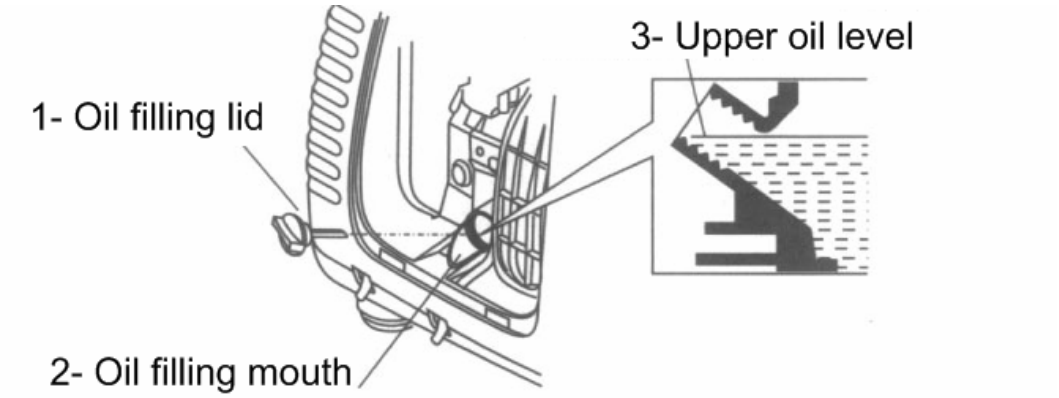
Dismantle the machine oil ruler, rub up it with clean duster cloth, and stick it into the oil-filling mouth to check the oil level. Pay attention not to drop the ruler into it.
If the machine oil level is below the bottom of the machine oil ruler, fill the recommended machine oil into the gasoline-filling mouth.

Warning

- If the engine runs when oil is in shortage, it can be seriously damaged.

Note:
The oil alarming system will turn off the engine before the oil level descends to

the security line. But to avoid the inconvenience caused by unexpected machine halt, we advise you to check the oil level regularly.



2. Check the gasoline level:

Please use gasoline for cars. (It's better to use no lead gasoline or having low content of lead, in order to reduce the accumulation of charcoal in the burning room.)
If the gasoline level is too low, please add gasoline into the gasoline tank until it reaches the required level.
Do never use the mixture of machine oil and gasoline or uncleaned gasoline.
Prevent filth, dust, or water entering the gasoline tank.
Screw down the gasoline-filling lid after filling the gasoline.

Warning

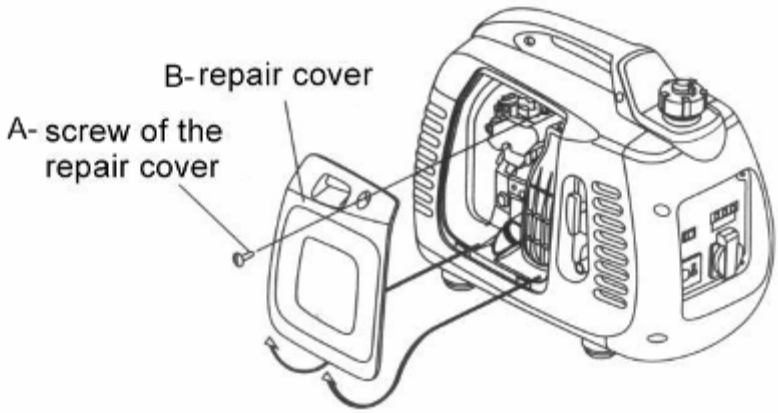
- The gasoline is very easy to burn or explode under specific conditions.
- Please fill the generator in a draught, and turn off the engine before filing. It is strictly forbidden to smoke close to the gasoline-filling and gasoline-storing parts of the generator.
- The gasoline must not be spilled out of the gasoline tank (the gasoline-filling mouth should not have any gasoline). Screw down the gasoline-filling lid after filling the gasoline.
- Be careful not to let the gasoline spill out when filling the generator. The gasoline overflowed or mist may take fire. Once there is some oil spilling out, make sure that the oil-spilled area is dried before starting the engine.
- Avoid exposing your skin to the gasoline in a long time or repeatedly. Do not let children have contact with it.

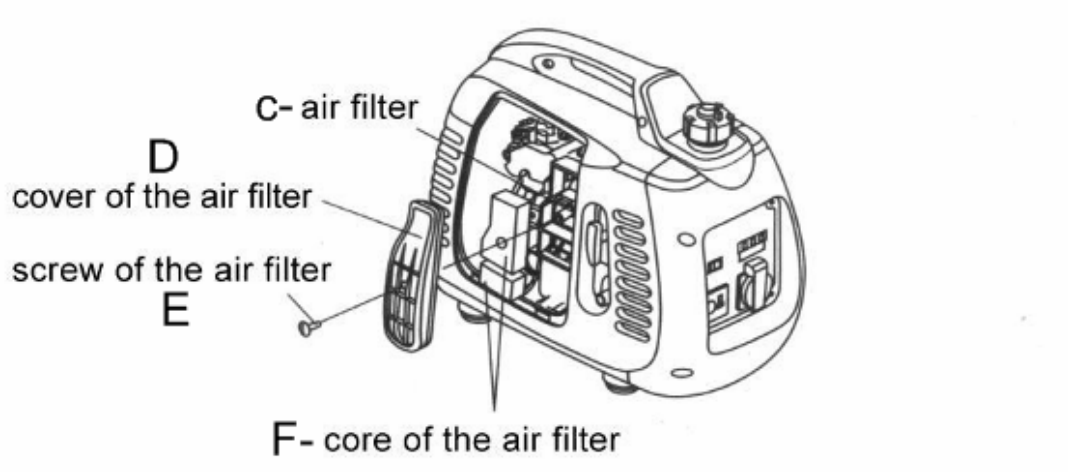
The gasoline containing alcohol
If you decide to use the gasoline containing alcohol (bioethanol), its octane value can not below the level recommended by manufacturer. There are two kinds of alcoholic gasoline: one contains ethanol, and the other contains methanol.
Do not use the kind of alcoholic gasoline that contains more than **10% ethanol.**
Do not use the alcoholic gasoline which has a content of over **5% methanol**.

WARNING:
- The damage of gasoline-burning system and the performance problem of the engine caused by using the alcoholic gasoline will not be included in the warranty. The manufacturer will not guarantee the use of fuel containing methanol, as its applicability has not been confirmed.
- Before you buy gasoline at unfamiliar gasoline stations, first try to know whether the gasoline contains alcohol or not. If it contains, confirm its type and the proportion of alcohol in it. If the gasoline you use contains alcohol or you think it contains alcohol, and unexpected situations occurred during the running process, please change to use the gasoline without alcohol.

3. check the air filter
Check the core of the air filter, ensuring that it is clean and performs well.
Dismantle the repair cover, loosen the screw on the cover of the air filter, and then dismantle the cover of the air filter to check the core.
Please clean or change the core if necessary.

Look out
Do not run the engine without the air filter, or else filth will enter the engine through carburetor, resulting in quick wear and tear of the engine.



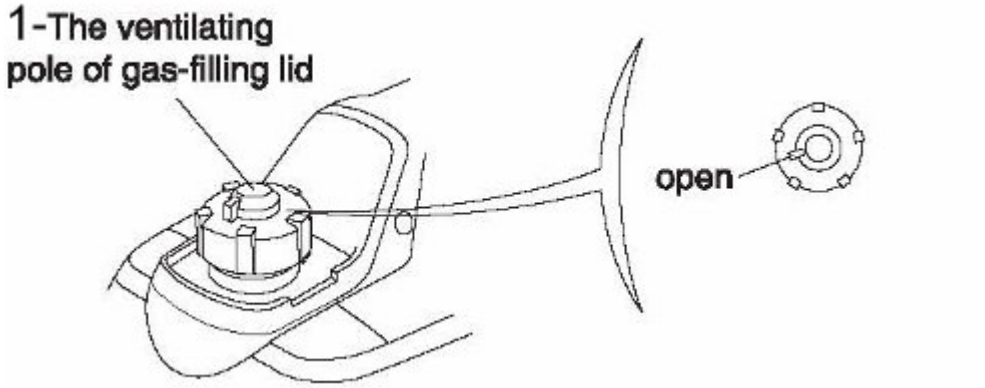

C- air filter
D
cover of the air filter
screw of the air filter
E
F- core of the air filter

5. Start the engine

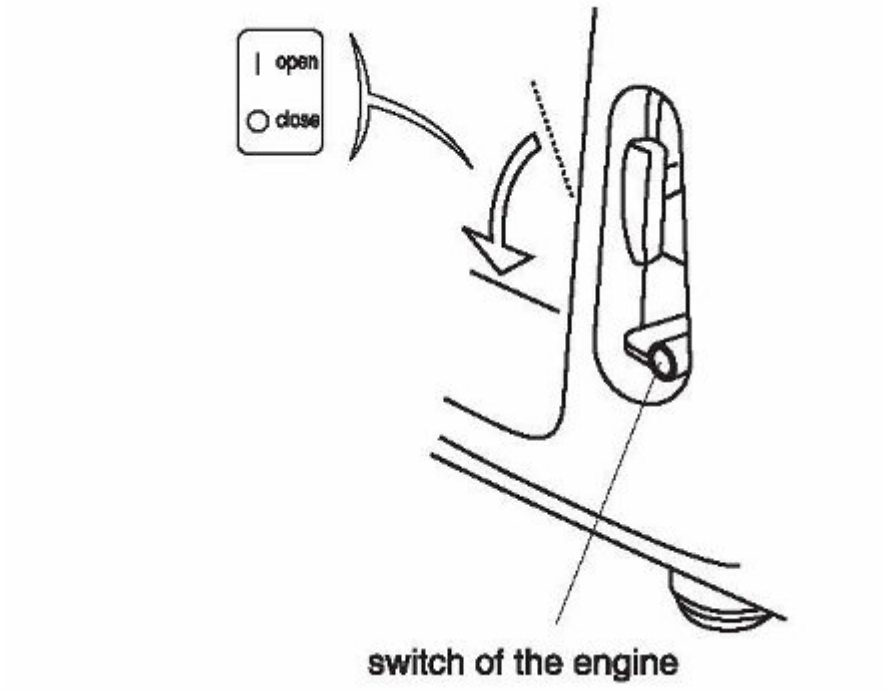
Before starting the engine, cut off the load from the alternating current socket on the engine.

a) Totally turn the valve to the “OPEN” position clockwise.

Note: when transporting the engine, you should turn the ventilating pole of the gasoline-burning lid to the “CLOSE” position.

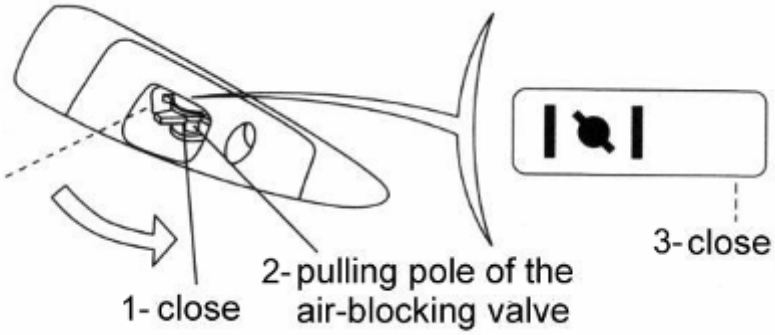


b) Turn the switch of the engine to the “OPEN” position



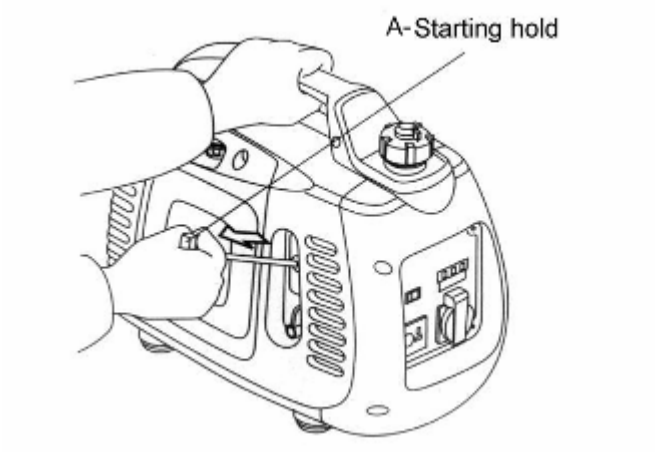
c) Turn the pulling pole of the air-blocking valve to the “CLOSE” position

Note: when the engine is hot or the environmental temperature is relatively high, do not use the air-blocking valve.

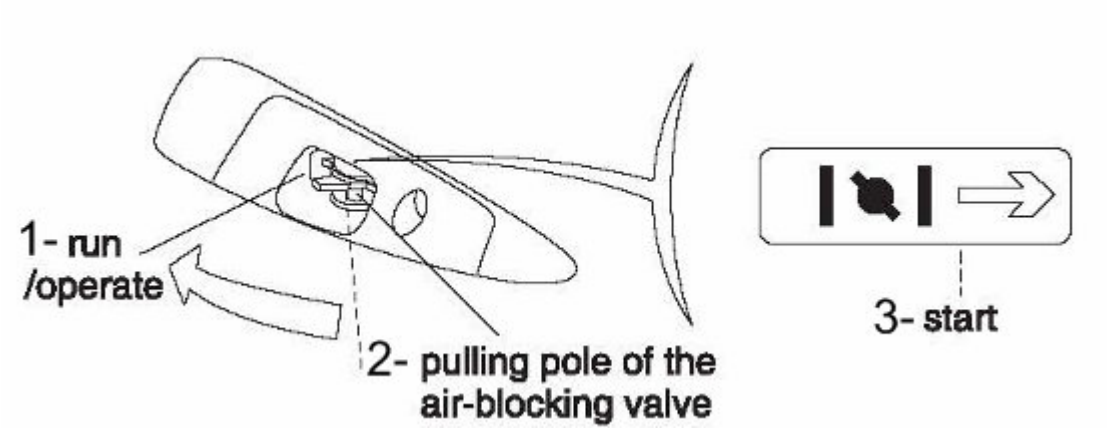


d) Pull the starting hold (fig. A) slightly until you feel the pressure, then release the hold slowly by hand.

Look out
Do not let the starting hold (Fig. A) rebound, and release it slowly by hand.



e) When the engine is warming up, turn the pulling pole of the air-blocking valve to the “START” position.



Attention

- If the engine can not restart after halting, check the oil level ahead of other failures.

Operation at high altitudes

At high altitudes, the standard carburetor air and gasoline mixture will become excessively dense, causing the decrease of the engine's functions, and increase of gasoline consumption. To enhance the performance of the engine in high-altitude areas, you can make special adjustments to carburetor. If you use the engine at an altitude of over 1500meters (5000 feets), please ask the authorized agent to modify the carburetor.

Even though you use the proper nozzle, the horsepower of the engine will still decline 3.5% as the altitude increases every 300meters (1000 feets). If these adjustments are not made, the altitude will have greater influence on power.

Look out

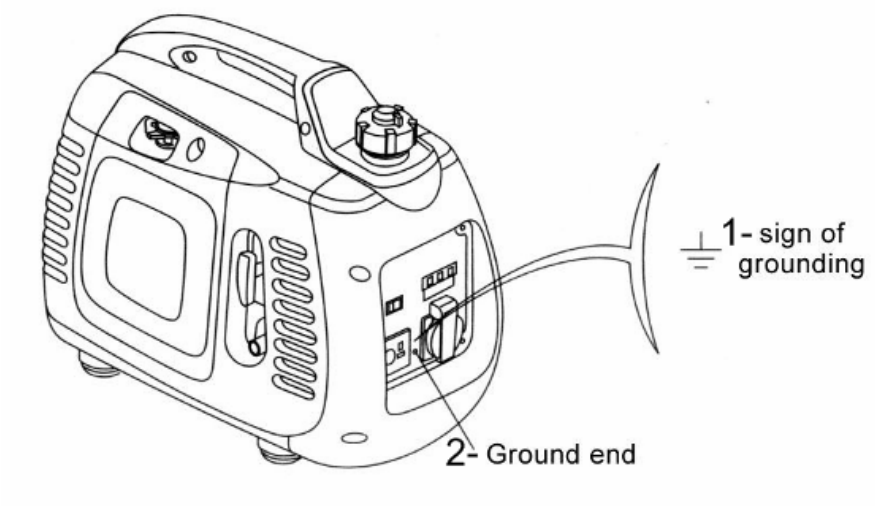
The nozzle of the engine is designed for high-altitude areas. If it is put to use in low altitudes, the outputting power may decline and become too hot, and even the engine will be damaged seriously because the ratio of the air and burning gasoline is too low.

6. Usage of the engine

If all the installations that are connected have been earthed, make sure to earth the engine.

Warning

- In order to prevent getting an electric shock because of incorrect operation, the engine should be earthed. The earth port of the engine and the outside earth source are connected by a thick cable.
- As spare electrical source for buildings, the connection between generator and other electric power system must be operated by professional electricians. And the operation must comply with the related laws and electric regulations. Otherwise, the current of the engine may feed back to the public circuit. In this case, if the workers from electric power company or other people touch the wire when transmitting electricity, they may be shocked by electricity to death. On the other hand, when public electricity power is stored, the engine may burn, explode, or cause fire to the building's electric power system.



Look out

- Do not exceed rated power, and the total watt of the connected electrical equipments should be considered.
- Do not exceed the fixed current limit of socket.
- Do not link the engine to the household circuit, or else the engine or the household circuit would be damaged.
- Do not modify the engine for other unrealized purposes.

Please comply with the following regulations:

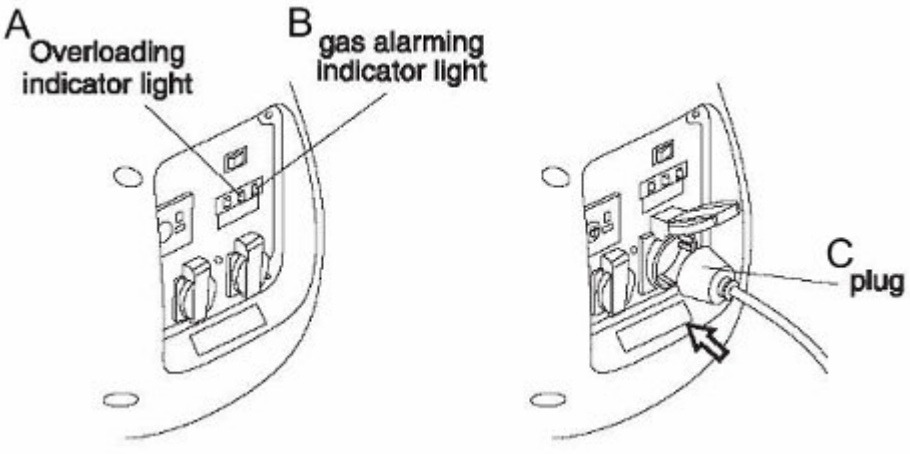
- If you need to lengthen the cable, please use the soft cable with rubber cover (according to IEC245 or relevant requirements).
- The length requirement of the lengthened cable: 60 meters for 1.5 square millimeters one, and 100 meters for 2.5 square millimeters one. If the cable is too long, the resistance in it will become so large that the applicable electric power will decrease.
- Keep the generator far away from other wires and cables, such as business electricity supplying circuitry.

Warning:

- The alternative AC and the direct electrical DC source can be used at the same time. If you want to use the alternating current and direct DC current socket at the same time, make sure that the total electric power will not exceed the summation of alternating and direct current.
- Remember! Most electrical equipment's starting power is higher than the rating power.

Use of AC alternating current

1 Start the engine, and make sure the indicator light (green) is on.
2 Make sure that the switch of the electrical equipment to be used has been turned off, before to plug it into the generator.
3. Start the equipement

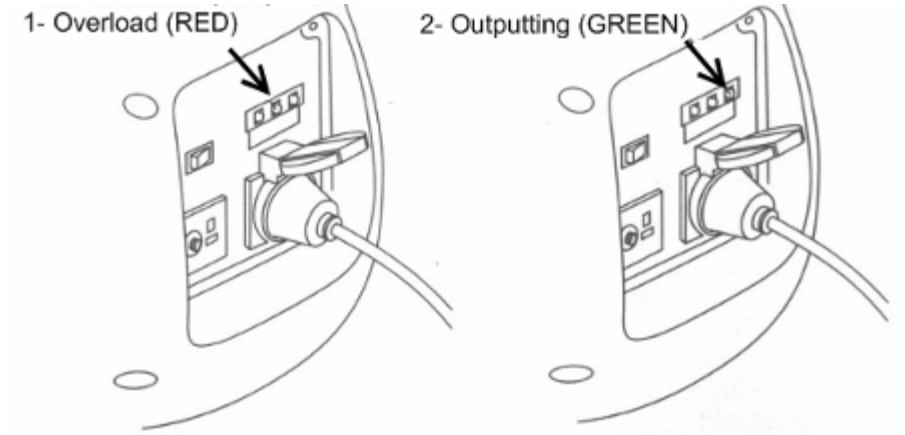


Look out

- When the electrical equipment is connected with generator, make sure the equipment works well before connecting. If the running of the equipment is abnormal, the speed decreases, or the machine suddenly stops working, you should turn off the engine immediately, disconnect it from the circuit, and

examine it to find out the breakdown.

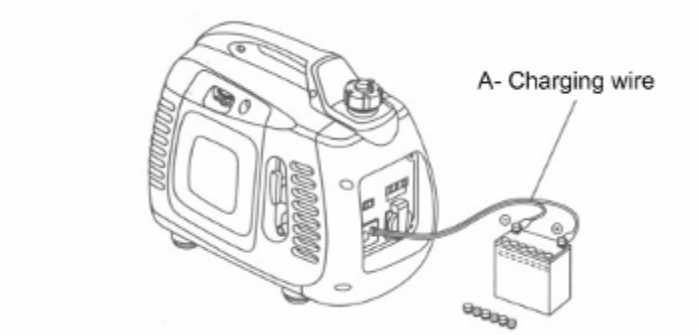
The outputting and overloading indicator lights
If the generator is in a good working order, the outputting indicator light (green) is on. If the generator overloads (over 2KVA), or in case of a short circuit inside the electrical machine it links to, the outputting indicator light (green) will turn off, while the overloading indicator light (red) will lighten. At this time, the current to the linked electrical equipment will be cut off. If the red indicator light is on, you should turn off the engine, and examine why it is overloaded.
Before you link the wire to the generator, first examine if it is in good working order, and whether its electric power level exceeds the generator capacity or not. Then engage the cable of the electrical equipment and start the generator.



Warning:
After the generator starts up, the red light and the green light may shine at the same time, if the red light goes out, it is normal. If the red light still shines, please inquire the generator agent.

Use of the continuous current
The continuous current AC socket is only applicable to charge the battery (12V).

Attention
- During the operation process of the direct current, turn the intelligent gasoline-saving valve to the “CLOSE” position.
- First connected the charging cable (Fig. A) to the direct current socket of the generator
- Then link it to the junction side of the battery.
- Start the engine



Warning

- In order to prevent spark appearing around the battery, first link the charging wire to the generator, and then to the battery. The dismantlement should start from the battery.

- Before you link the charging wire to the battery which is installed on the car, first disconnect the battery's ground wire. Do not connect the battery's ground wire until the charging cable is dismantled. Such operation will help to prevent short circuit or spark when you contact the junction side of the battery with the car's frame or body uncarefully.

Look out

- Do not try to start the car's engine when the generator is still connected with the batteries, or else the generator will be damaged.
- The positive pole of the charging cable should not be connected to the negative pole of the battery. Do not confuse the polarity of the charging cable, otherwise serious results such as damage of the generator and the battery will be caused.

Warning

- The battery will release explosive gasoline, so it must be kept away from spark, flame, or cigarettes. Please charge it in the draught.
- The battery contains acid (electrolytic cell). Once your skin or your eyes have direct contact with it, they will be burnt. Please wear exposure suit and mask.

↘ If the electrolyte spatters on your skin, clean it with water immediately.

↘ If the electrolyte spatters into your eyes, clean it with water immediately for at least 15 minutes, and go to the doctor at once.

- The electrolyte is toxic.

↘ If you swallow it, drink a lot of water or milk at once. Then drink magnesia latex or vegetable oil, and go to the doctor at once.

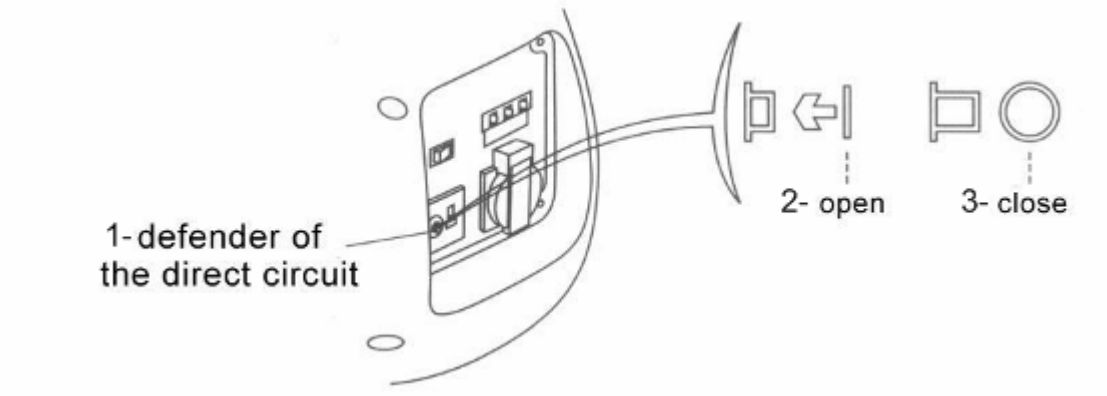
- Keep the children away from it.

Attention

- The direct current socket can be applied when you are using alternating

current.

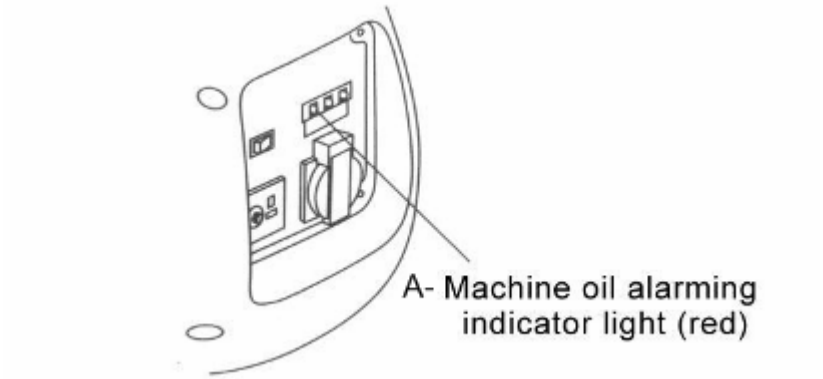
- Overloading direct circuit may make the defender of the direct current trip. (The pressed switch springs back.) If this happens, wait for a few minutes, and then press the defender again to re-operate.



Low oil level alarming system

Low oil pressure alarming system is designed to prevent the engine being damaged by lack of machine oil in the crankcase. Before the machine oil in the crankcase declines to the security line, the low oil pressure alarming system will turn off the engine automatically. (The switch of the engine will be still in the "OPEN" position.)

After low oil pressure alarming system has closed the engine, if you operate the starter again, the low oil pressure alarming light will lighten (Fig. A), and the engine will not run. If this happens, please add machine oil.

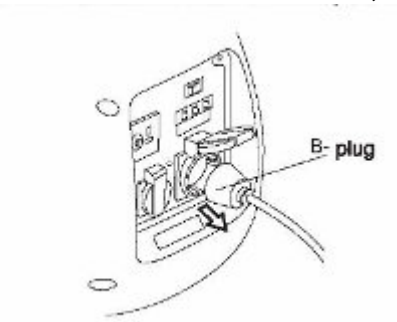


7. Turn off the engine

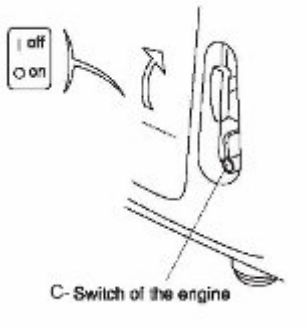
If you want to stop the engine urgently, turn the switch of the engine to the "CLOSE" position.

Normal use:

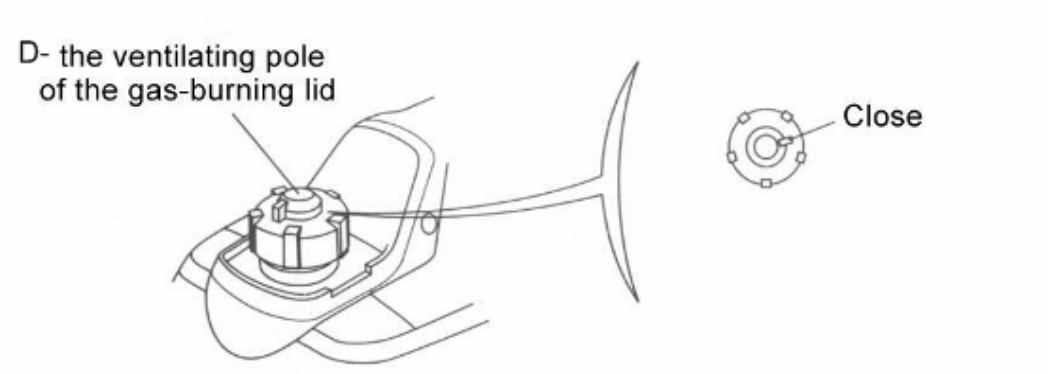
1. Turn off all the installations that are connected, and unplug the plug (Fig. B).



2. Turn the switch (Fig. C) of the plug to the "OFF" position.



3. After the engine is totally cooled, turn the ventilating pole of the gasoline-burning lid to the "CLOSE" position counter-clockwise (Fig. D).



Look out

- When you turn off, convey, and store the engine, make sure that the switches of the ventilating pole of the gasoline-burning lid and the engine are on the "CLOSE" position.

8. Maintenance

The purpose of making maintenance and adjustment plan is to keep the generator in the best working condition.
Please check and maintain the generator according to the plan in the following chart.

Warning

- Please turn off the engine before you carry out any repair. If the engine needs to run when repairing, make sure the operating area is well ventilated, as the exhaust contains toxic CO.

Look out

- Please use authentic components of G2000i or other substitutes with the same quality. The unqualified components will damage the generator.

The plan chart for maintenance

Please maintain the generator in specified months or hours either month or hour is ok

item / maintaining time by stages (1)		usage at a time	the first month or 20 hours	every three months or 50 hours	every six months or 100 hours	every year or 200 hours
machine oil	check	O				
	change		O		O	
air filter	check	O				
	clean			O(1)		
spark plug	clean-adjustment				O	
	change					O
burning container	clean	Every 300 hours(2)				
clearance of air-door	check-adjustment					O(2)
gasoline tank and filter	clean				O(2)	
gasoline route	check	every 2 years Please change if necessary.				

Note:

(1). If used in dirty places, the generator should be maintained more regularly.
(2). Unless the user has proper tool or he is a specialist on machine, the maintenance of the above items should be done by the authorized agent. Please refer to the handbook.
(3). When it is used for business purpose, you should write down the operating hours of the generator to confirm the correct maintenance cycle.

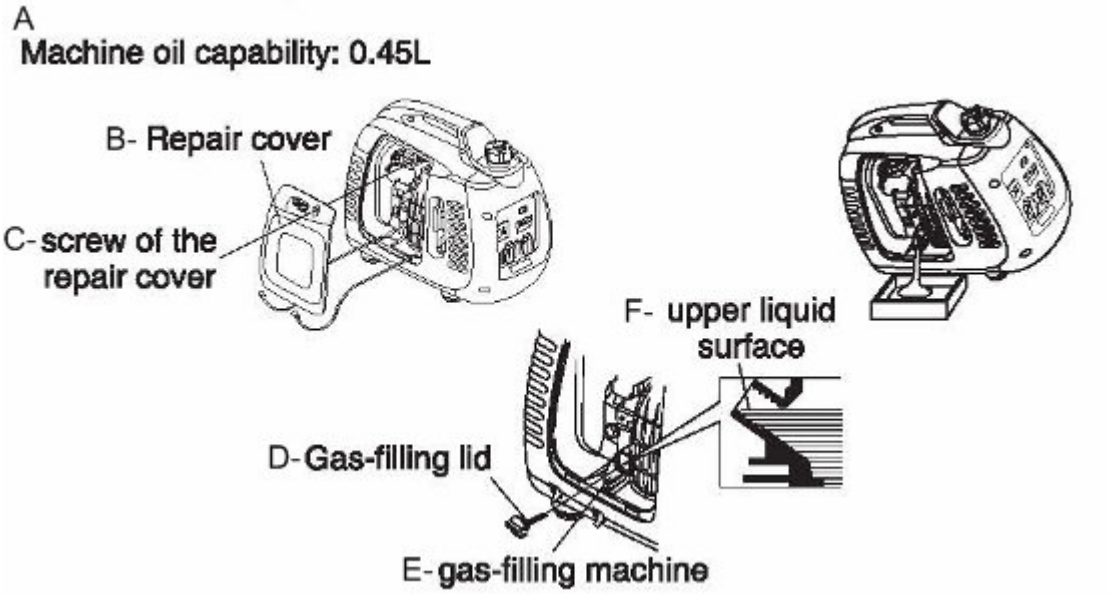
3. Change the oil

Please discharge the machine oil quickly and thoroughly when the engine is still hot.

Look out

Before you discharge the oil, make sure the switches on the ventilating pole of the gasoline-burning lid and the engine are on the “close” position.

1. Loosen the screw, and dismantle the repair cover.
2. Dismantle the gasoline-filling lid.
3. Discharge the dirty oil thoroughly into a container.
4. Fill the recommended machine oil, and check the machine oil level.
5. Re-install the repair cover and screw the screw.



Please clean your hands with soap after dealing with the machine oil.

Attention

- In order to answer for the requirement of environmental protection, we suggest you encasing the abandoned machine oil into sealed containers, and

send it to the local repair station or recycle center. Do not pour the oil to the ground or into the rubbish.

3. Maintenance of the air filter

Dirty air filter will block the air from entering the carburetor. In order to prevent the carburetor from failure, please maintain the air filter regularly. If the generator is used in very dirty places, it will thus need to be maintained more regularly.

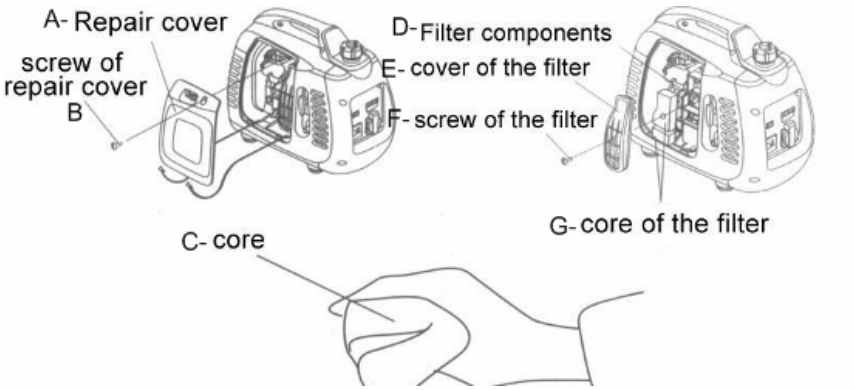
Warning

- Do not use gasoline or solvent with low burning point to clean the engine, as they are easy to burn and explode under specific conditions.

Look out

- Do not run the generator without the air filter, or else the engine will be worn quickly.

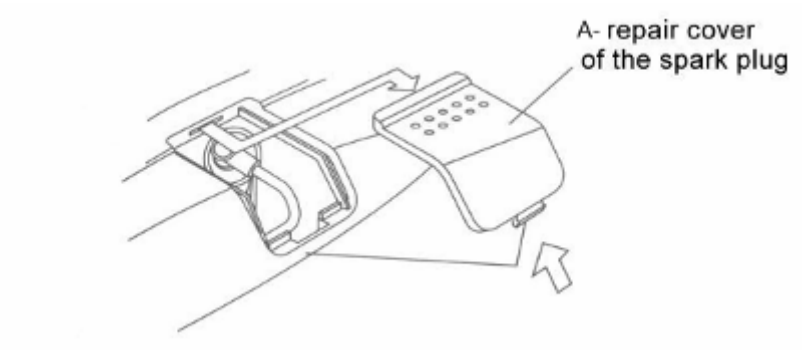
1. Loosen the screw on the repair cover, and dismantle the repair cover.
2. Loosen the screw on the cover of the air filter, and then dismantle the cover of the air filter.
3. Clean the core of the air filter with the kind of solvent which is not flammable or has high burning point, and then air the core.
4. Clean the core with clean machine oil, and squeeze out superfluous machine oil.
5. Re-install the core of air filter and its cover, and screw the screw on the cover.
6. Re-install the repair cover, screw the screw.


A- Repair cover
screw of repair cover B
D- Filter components
E- cover of the filter
F- screw of the filter
G- core of the filter
C- core

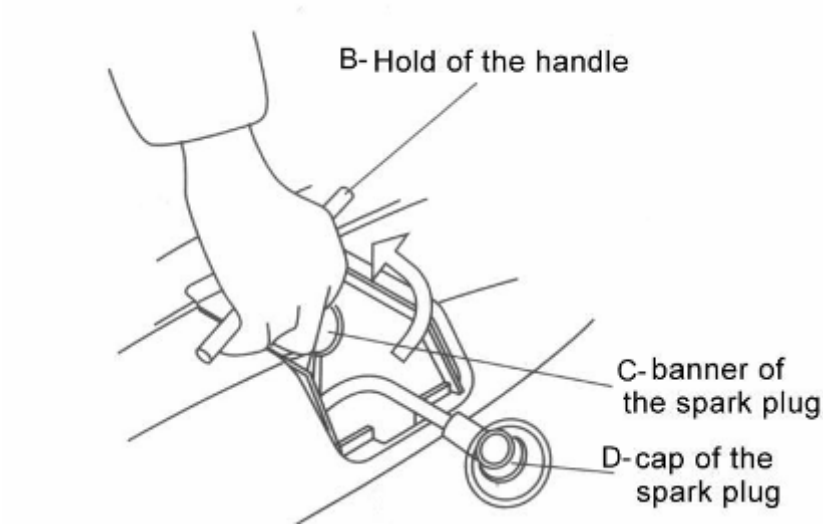
3. *Maintenance of the spark plug*

Recommended spark plug: A7RC or NGK R7HSA
To ensure the engine to work in good order, the clearance of the spark plug must be correct, and has no accumulated charcoal.

1. Dismantle the repair cover of the spark plug (Fig. A).

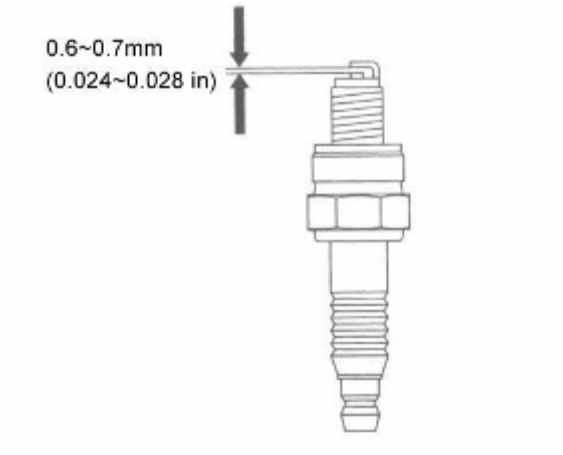


2. Dismantle the cap of the spark plug.
3. Clean out the filth around the base of the spark plug.
4. Dismantle the spark plug with a spanner.



5. Examine the spark plug with your naked eyes. If the insulator has crazed or has fragments, you should discard the spark plug. If the old spark plug needs to be used continually, you must clean it up with a brush.

6. Measure the clearance of the spark plug with a gauge. The clearance should be 0.6nm to 0.7nm.



7. Install the spark plug carefully by hand. Pay attention not to overlap the screw thread.

8. After installing a new spark plug by hand, screw it with a spanner for a half circle in order to press the washer tightly. If an old spark plug is installed, you only need to screw it from one eighth circle to one fourth circle after it is fixed.

9. Re-install the cap of the spark plug.

10. Reinstall the repair cover of the spark plug.

Look out

- The spark plug must be fixed firmly, or else it will become very hot and damage the generator.
- Do not use the spark plug whose thermal measurement range is not suitable.

9. Transport / Storage

In order to avoid the generator leaking oil during transport or temporary storage, make sure to switch off the generator, keeping it at a standing pose under normal operations. After the engine is totally cooled, turn the ventilating pole of the gasoline-filling lid to the “close” position thoroughly.

Warning

- When transporting the generator:

Do not let the gasoline spill out of the gasoline tank. (The top of the gasoline-filling tank should have no gasoline.)

- When the generator is placed on vehicle, do not run the engine. You should take the generator down from the car and operate it in the draught.
- When you take the generator to the car, avoid exposing it to sunshine. If it is put in sealed carriage for a long time, the high temperature of the carriage may cause the gasoline to boiling away, thus leads to burn.
- The cars loaded with generator should not bump on the uneven roads for a long time. If it has to travel on such roads, the gasoline in the gasoline tank should be discharged thoroughly in advance.

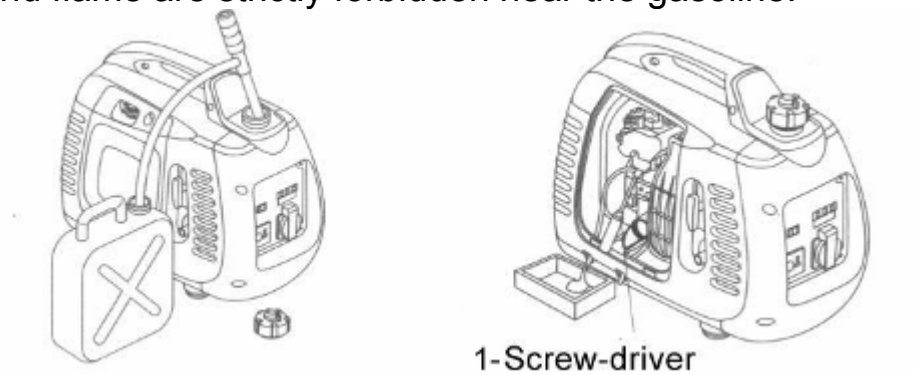
Before the generator is put into a long-time storage, you should:

1 Make sure the storage area is clean and dry.

2 Discharge the gasoline thoroughly.

Warning

- Gasoline is very easy to burn or explode under specific conditions.
- Smoke and flame are strictly forbidden near the gasoline.



A. Discharge the gasoline in the gasoline tank thoroughly into a proper container

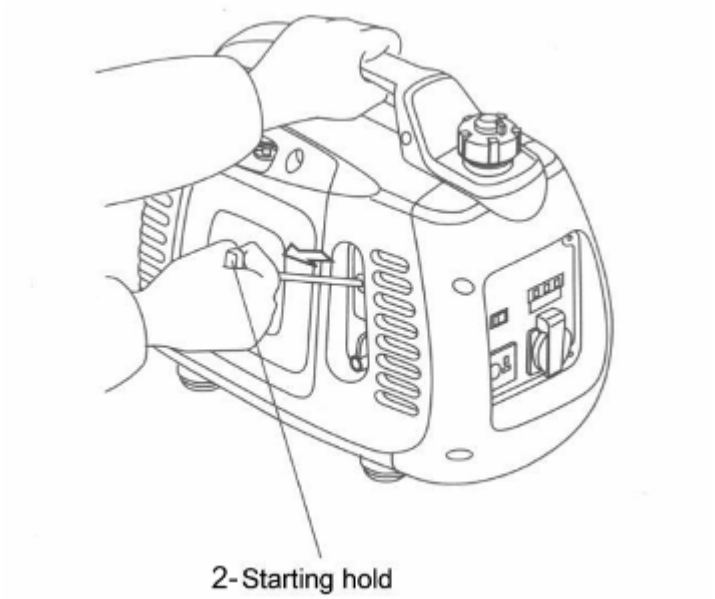
B. Turn the switch of the engine to the “CLOSE” position. Dismantle the oil-discharging screw (Fig.1) on the carburetor and discharge the gasoline in it into a proper container.

C. Screw down the oil-discharging screw on the lid of the spark plug. Pull the starting hold for three or four times, and discharge the gasoline from the oil-spouting pump.
D. Turn the switch of the engine to the “CLOSE” position. Then screw the oil-discharging screw tightly.
E. Re-install the cap of the spark plug on the spark plug.

3. Discharge the machine oil.

4. Dismantle the spark plug, and pour a big spoon of clean machine oil into the engine. Make the engine rotate for several circles to make the oil evenly distribute. Install the spark plug again.

5. Pull the starting hold (Fig. 2) slowly until you feel the resistance. At this time, the piston reaches the compressed stroke, and both the entering and the discharging valve are closed. To store the generator under such condition will help to prevent the inside of the machine rusting.



10. Examine and repair the breakdown

If the engine can not be started:
Does the gasoline tank still have gasoline? → If not, fill gasoline into the gasoline tank.
↓yes
Is the switch of the generator on the "open" position？ → If not, switch on the engine.
↓yes
Is there enough machine oil in the engine? → If not, add enough machine oil
↓yes
Is there any spark outside the spark plug? → If not, change the spark plug → If not, send the generator to the authorized agent.

Warning
Make sure that there is no gasoline spilling out of the spark plug. The overflowed gasoline may catch fire.

Examination:
1 Dismantle the spark plug, clean out the filth around it.
2 Dismantle the spark plug, enclose it into the cover of it.
3 Earth the side pole on the lid of the air cylinder.
4 When you pull the starting hold, the spark must spray from the clearance.
↓yes
If the engine still can not be started, send the generator to the authorized agent.

If the engine can not be started:
Does the outputting indicator light lighten? → If not, fill gasoline into the gasoline tank
↓no ↓no
Does the overloading indicator light lighten?
↓ No
Examine whether the electrical equipment or installations have any breakdown? → If not, send the generator to the authorized agent

No electric power in the direct current socket:
Is the defender of the direct circuit open? → If not, open the defender of the direct circuit
↓
→→→→→ If yes, send the generator to the authorized agent.

11. Technical specifications

Size and weight

- model G1000I
- length*width*height(mm) 480*260*380
- net weight(kg) 15.3

Engine

- model 144F
- engine type stroke 4, overhead air valve, one cylinder
- exhaust quantity(diameter of tank * stroke) 43,5*36mm
- compressing proportion 8.5:1
- rotate speed 5200rpm(intelligent accelerograph closes)
- cooling system compulsive cold wind
- ignition system transistor
- gasoline capability 0.25L
- capability of gasoline tank 2.1L
- spark plug A7RC
- noise level(ISO8528-10) 64db/7m
- displacement 113cc

Generator

- prearranged frequency(Hz) 50
- rated pressure(V) 230
- rated current(A) 3.9
- rated power output(KVA) 850w
- largest amount of power output(KVA) 950w
- direct current output 12V 6A
- electrical open circuit installation yes
- noise level (zero load ~ full load) / 7m 59- 64db/7m

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